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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,054	08/06/2001	Susumu Nikawa	FUJA 18.905	9863
26304	7590	06/29/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			ELAHEE, MD S	
			ART UNIT	PAPER NUMBER
			2645	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/923,054	NIKAWA ET AL.
	Examiner	Art Unit
	Md S. Elahee	2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 23 February 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-6 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-6 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is responsive to an amendment filed 02/23/05. Claims 1-6 are pending.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. Patent No. 5,751,172) in view of Yamawaki (U.S. Patent No. 5,159,543) further in view of Ramsey et al. (U.S. Patent No. 6,215,288).

Regarding claims 1 and 5, Takano teaches a DC/DC converter for supplying power to the display unit (fig.2; col.3, lines 23-26).

Takano further teaches a frequency switching unit for selectively switching and supplying one of a plurality of switching clock frequencies (fig.2; col.3, lines 52-59)

However, Takano does not specifically teach supplying one of a plurality of switching clock frequencies to the DC/DC converter. Yamawaki teaches supplying one of a plurality of switching clock frequencies to the DC/DC converter (col.2, lines 20-31). Thus, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano to allow supplying one of a plurality of switching clock frequencies to the DC/DC converter as taught by Yamawaki. The motivation for the modification is to have doing so in order to control the DC/DC converter so that there will be reduced power consumption in case of no communication.

Takano further teaches a CPU (i.e., display mode detecting unit) for detecting that the display unit has been switched to a display halted (i.e., predetermined low-power consumption) mode, determining one of the plurality of switching clock frequencies and instructing the clock frequency generating circuit (i.e., frequency switching unit) to execute this selective switching (col.3, lines 52-59, col.4, lines 23-27, 44-47, 55-60). (Note; when the display is halted, clock frequency is set to the lowest speed (see col.4, lines 55-57))

However, Takano in view of Yamawaki does not specifically teach determining one of the plurality of switching clock frequencies to maintain an efficiency of the DC/DC converter at an optimum level in the predetermined low-power consumption mode. Ramsey teaches determining one of the plurality of switching clock frequencies to maintain an efficiency of the DC/DC converter at an optimum level in the predetermined low-power consumption mode (col.5, lines 26-30, 65-67, col.6, lines 1-3). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano in view of Yamawaki to determine one of the plurality of switching clock frequencies to maintain an efficiency of the DC/DC converter at an optimum level in the predetermined low-power consumption mode as taught by Ramsey. The motivation for the modification is to have doing so in order to improve the efficiency at low power output without having any inconvenience.

Regarding claim 2, Takano teaches the display mode detecting unit determines lower one of the plurality of switching clock frequencies, when the display unit has been switched to a lower-power consumption mode (col.4, lines 23-27, 44-47, 55-60).

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. Patent No. 5,751,172) in view of Irube et al. (U.S. Patent No. 6,377,818) further in view of Ramsey et al. (U.S. Patent No. 6,215,288).

Regarding claims 3 and 4 are rejected for the same reasons as discussed above with respect to claim 1. Furthermore, Takano teaches monitoring the display unit to see whether the display unit is in a halted mode or not (fig.2; col.5, lines 54-59, col.6, lines 12-20).

However, Takano does not specifically teach display color number limiting mode. Irube teaches display color number limiting mode (col.15, lines 38-51). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano to allow display color number limiting mode as taught by Irube. The motivation for the modification is to have doing so in order to determine a movement instruction of the display region in the vertical direction.

Takano further teaches switching the frequency to the determined switching clock frequency, and operating the DC/DC converter at this frequency (col.3, lines 52-59, col.4, lines 23-27, 44-47, 55-60).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takano (U.S. Patent No. 5,751,172) in view of Yamawaki (U.S. Patent No. 5,159,543) further in view of Ramsey et al. (U.S. Patent No. 6,215,288) further in view of Irube et al. (U.S. Patent No. 6,377,818).

Regarding claims 5 and 6, Takano teaches that the display unit (col.4, lines 23-27).

However, Takano in view of Yamawaki further in view of Ramsey does not specifically teach an LCD display unit. Irube teaches an LCD display unit (col.14, lines 50-55). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takano in view of Yamawaki further in view of Ramsey to allow an LCD display unit as taught by Irube. The motivation for the modification is to have doing so in order to display a video sensed by the camera unit on the video LCD.

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Alderton (U.S. Patent No. 6,263,192) teach Methods and apparatus for DC-DC converter synchronization in a mobile DC-powered device.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2645

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S. Elahee whose telephone number is (571) 272-7536. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.E.

MD SHAFIUL ALAM ELAHEE  
June 27, 2005



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